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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/995,028	11/26/2001	Chandrasekharan Seetharaman	BEA920010028US1	9618
30011	7590	03/07/2006	EXAMINER	
LIEBERMAN & BRANDSDORFER, LLC 802 STILL CREEK LANE GAITHERSBURG, MD 20878			SCUDERI, PHILIP S	
			ART UNIT	PAPER NUMBER
			2153	

DATE MAILED: 03/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	09/995,028		SEETHARAMAN ET AL.	
	Examiner		Art Unit	
	Philip S. Scuderi		2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-8 and 10-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-8 and 10-20 is/are rejected.
- 7) ☒ Claim(s) 7 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office action is in response to applicant's amendment filed on 07 December 2005.

Response to Amendment

During the interview process the examiner make a proposal that overcame the Hubis and Imamura references. However, upon further consideration, the reference to Kitamura is more applicable to the claims that the examiner previously realized. Accordingly the allowable subject matter indicated previously is not necessarily still considered allowable by the examiner. The examiner apologizes for any inconvenience this may have caused. The examiner decided to mail another office action for administrative purposes and because there are a number of outstanding issues.

Response to Arguments

Applicant contends that the port identifier shown by Kitamura is not associated with a label of the storage media, and more specifically, a hardware attribute as defined by the storage media label. Applicant cites that the port identifier is instead "a unique 24 bit address used for frame routing".

In response, the examiner notes that at least the independent claims do not recite all the features referred to above. Also, the "associated storage media" recited in the claims (e.g., claim 1, line 5) is not necessarily the same storage media recited in, for example, claim 1, line 3. The associated storage media reads on host 2 (Kitamura, figure 1). See also the detailed explanation in the rejection of claim 1 as being anticipated by Kitamura below.

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It is noted that the examiner has modified the statutory grounds of rejection and accordingly this action is non-final.

Claim Objections

Claim 7 is objected to for a minor informality because “the computing environment” technically lacks antecedent basis. The limitation should presumably read “the computer environment” to be consistent with claim 1.

Claim 18 is objected to for a minor informality because the word “node” in line 2 should presumably be plural.

Claim Rejections - 35 USC § 101

Although applicant has amended claims 14 and 15 as suggested by the examiner, the examiner’s suggestion itself was wrong. The examiner apologizes for any incontinence this may have caused applicant. Applicant’s amendments have overcome the 101 rejection of claim 15, but not of claims 14, 16, and 17.

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 14, 16, and 17 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 14, 16, and 17 are directed to an article comprising a “computer-readable medium”. However, claim 15 claims that the computer-readable medium is a recordable data storage medium.

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By definition a dependent claim narrows the scope of a parent claim. As such, claim 14 must be broad enough to read on a computer-readable medium that falls outside the scope of the recordable data storage medium of claim 15. The specification gives a "signal-bearing" medium as an example of such a medium (page 3, lines 5-6), which is not necessarily tangibly embodied and therefore non-statutory.

Claim Rejections - 35 USC § 112

The examiner has withdrawn the 112 rejections set forth in the last Office action because applicant's amendments have overcome the rejections. However, the following rejections apply.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 3-8, 10-13, and 18-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "said storage media" in line 3. There is insufficient antecedent basis for this limitation in the claim. The examiner's suggests amending the preamble to recite "shared storage media", rather than "shared storage".

Claim 1 recites "accessing said storage media ... in response to said access rights", which appears to imply accessing the storage media in response to the receipt of the access rights. In the specification, the access rights appear to be established by the accessing nodes (e.g., page 6, line 21 –

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page 7, line 6). The examiner's best understanding is that applicant really means accessing the storage media according to the access rights and will treat the claim accordingly.

Claim 8 recites the limitation "said access manager being responsive at least in part to said hard attribute". The access manager being responsive appears to mean that the access manager exists in response to the access manager receiving the hard attribute, which doesn't appear to make sense and raises the possibility of 101 issues for lack of utility. The examiner's best understanding of applicant's intention is that applicant meant to claim that the access manager provides access to the storage media in response at least in part to the hard attribute. The examiner will treat the claim as best understood.

Claim 10 recites that the "access manager is responsive", which has similar problems to claim 8.

Claim 18 recites the limitation "data selected from a group consisting of: a vendor, a product, and a serial number". The claim can be interpreted to encompass data that includes a "vendor", rather than a "vendor number", which doesn't appear to make sense. The examiner's best understanding of applicant's intention is that applicant meant to claim "data selected from a group consisting of: a vendor number, a product number, and a serial number". The examiner will treat the claim as best understood.

Claim 18 recites "establishing access rights ... responsive to said label" and "coordinating access to said storage media responsive to said label". It is unclear how the specification supports

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establishment or coordination of access “responsive” to the label. The examiner suggests using language such as “according to said label” or describing how the limitation reads on the specification. The examiner will treat the claim as best understood.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3-5, 7, 8, 10-13, and 14-20 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,816,948 (hereinafter “Kitamura”).

Regarding claim 1, Kitamura teaches a method for safely accessing shared media (storage system 4) in a computer environment (figures 1 and 2) having two or more nodes (nodes 1-3) comprising:

establishing access rights of one of said nodes to said storage media, the step of establishing access rights is responsive at least in part to receipt of a hard attribute of associated storage media (column 5, lines 31-42; “host 1 transmits ... a port ID of the host 2 ... to thereby request allowance for the access”; figure 1; column 2, lines 64-65; host 2 can be considered “associated storage media”

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because it stores programs etc. and because it is associated with storage media 4 by simply being in the same network); and

accessing said storage media by one of said at least two or more nodes according to said access rights (column 5, lines 50-56).

Kitamura does not expressly disclose that the port ID of host 2 (i.e., the hard attribute of associated storage media) includes a product number or a serial number. However, these limitations are inherent. The definition of Port ID provided by applicant states that “[t]he Port_ID hierarchy includes ... an 8-bit Device ID”, which reads on a product number and/or a serial number.

Regarding claim 3, Kitamura teaches that establishing access rights includes creating a label (figure 3, rows in table 500) including the hard attribute (the Port ID). The Device ID within the Port ID also reads on the claimed type field and node identifier fields. The claims do not specify that these are separate fields. The device ID can be considered a type field because it identifies a device, so it inherently identifies a “type” of device. The device ID can be considered a node identifier because it identifies host 2, which is a node in the network of figure 1.

Regarding claim 4, the type field (the device ID) does not indicate that the storage media is node-owned.

Regarding claim 5, Kitamura teaches that the label (figure 3, rows in table 500) includes a cluster identifier (figure 3, a start block). The type field (the device ID) does not indicate that the node is cluster-owned.

Regarding claim 7, Kitamura teaches that the computing environment is a storage area network (figure 1).

Regarding claim 8, Kitamura teaches a computing environment (figure 1) comprising:
two or more nodes (1-3);
shared storage media (4);
associated media (2) having a hard attribute (22);
said hard attribute includes a hardware identifier field having a product number; and
an access manager for each of at least two said nodes, said access manager providing access to said storage media in response at least in part to said hard attribute (column 5, lines 31-42).

Kitamura does not expressly disclose that the port ID of host 2 (i.e., the hard attribute) includes a product number or a serial number. However, these limitations are inherent. The definition of Port ID provided by applicant states that “[t]he Port_ID hierarchy includes ... an 8-bit Device ID”, which reads on a product number and/or a serial number.

Regarding claim 10, Kitamura teaches that establishing access rights includes creating a label (figure 3, rows in table 500) including the hard attribute (the Port ID). The Device ID within the Port ID also reads on the claimed type field and node identifier fields. The claims do not specify that these are separate fields. The device ID can be considered a type field because it identifies a device, so it inherently identifies a “type” of device. The device ID can be considered a node identifier because it identifies host 2, which is a node in the network of figure 1.

Regarding claim 11, the type field (the device ID) does not indicate that the storage media is node-owned.

Regarding claim 12, Kitamura teaches that data received from host 1 (i.e., the label) (figure 3, rows in table 500) includes a cluster identifier (figure 3, a start block). The type field (the device ID) does not indicate that the node is cluster-owned.

Regarding claims 14 and 15, Kitamura teaches a recordable computer-readable medium comprising code that when executed in a computer causes the computer to perform the steps described in the rejection of claim 1 (e.g., disk management program 114).

Regarding claim 16, Kitamura teaches granting a positive access request to a node responsive to confirmation of node ownership of said media (column 5, lines 50-56).

Regarding claim 17, Kitamura teaches granting a positive access request to a node in a cluster (host 2 is a cluster of 1 node) responsive to confirmation of cluster ownership of said media (column 5, lines 50-56).

Regarding claim 18, Kitamura teaches a method for safely accessing shared storage media (4) in a computing environment (figure 1) having two or more nodes (1-3) comprising:

writing a label (figure 3, rows in table 500), said label being determined at least in part by a hardware identifier of associated storage media of said storage media (column 5, lines 31-42; frames comprising a Port ID of host 2 transmitted to node 4);

establishing access rights of a node to said storage media according to said label (column 5, lines 50-56); and

coordinating access to said storage media according to said label (column 5, lines 50-56).

Kitamura does not expressly disclose that the port ID of host 2 transmitted to storage media 4 (i.e., the hard attribute) includes a product number or a serial number of storage media 4.

However, these limitations are inherent.

The definition of Port ID provided by applicant states that “[t]he Port_ID of the Source Port (S_ID) and the Port_ID of the Destination Port (D_ID) is used in the Fibre Channel frame header”. As such, the frames transmitted to storage media 4 include a Port_ID of the destination node 4. The definition further states that “[t]he Port_ID hierarchy includes ... an 8-bit Device ID”, which reads on a product number and/or a serial number. Therefore, frames comprising a Port ID of host 2 transmitted to node 4 comprise the device ID of node 4 (i.e., the storage media).

Regarding claims 19 and 20, the type field (the device ID) does not indicate that the storage media is node-owned or cluster-owned.

Claims 1, 8, 14, 15, and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,343,324 (hereinafter “Hubis”).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this

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application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

Hubis teaches a method for safely accessing shared media (figures 1-2, #108) in a computer environment having two or more nodes (figures 1-2, #101) comprising:

establishing access rights of one of said nodes to said storage media (column 9, lines 52-57; generating a volume WWN table),

wherein the step of establishing access rights is responsive at least in part to a hard attribute of associated storage media (column 8, lines 53-58; responsive to a unique WWN),

wherein said hard attribute includes a hardware identifier field comprising a serial number (column 6, lines 39-44); and

accessing said storage media by one of said at least two or more nodes according to said access rights (column 9, lines 52-57).

Claims 1, 8, 14, 15, and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,453,369 (hereinafter “Imamura”).

Imamura teaches a method for safely accessing shared media (column 5, lines 6-13; a magneto-optical disk) in a computer environment having two or more nodes (column 5 lines 14-23; storage devices) comprising:

establishing access rights of one of said nodes to said storage media (column 5, lines 14-23; establishing that only when the identifier of a storage device matches the identifier of the magneto-optical disk the reading/writing of data is permitted),

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wherein the step of establishing access rights is responsive at least in part to a hard attribute of associated storage media (column 5, lines 6-13 and 44-49; the establishment is responsive to the providing of a device identifier on the medium),

wherein said hard attribute includes a hardware identifier field comprising a serial number (column 5, lines 6-13); and

accessing said storage media by one of said at least two or more nodes according to said access rights (column 6, lines 12-15).


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip S. Scuderi whose telephone number is (571) 272-5865. The examiner can normally be reached on Monday-Friday 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton B. Burgess can be reached on (571) 272-3949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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